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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,626	05/24/2006	Robert Schmeler	6077-0031WOUS	4377

35301 7590 09/22/2009
MCCORMICK, PAULDING & HUBER LLP
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EXAMINER

KASTLER, SCOTT R

ART UNIT	PAPER NUMBER
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1793

MAIL DATE	DELIVERY MODE
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09/22/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,626	Applicant(s) SCHMELER ET AL.	
	Examiner Scott Kastler	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2009 and 17 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-59 and 63-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-59 and 63-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on 8/17/2009 and 9/1/2009 have been entered.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 35-41, 50, and 53-70 are rejected under 35 U.S.C. 102(b) as being anticipated by German'998. German'998 teaches a cooling plate (11) including machined holes which are filled with cooling tubes (13), where the tubes are press fit into the holes preferably by shrink fitting, which meets the definition of a metallurgical process which imparts some, unspecified force onto either the front or rear face of the plate since metal members are deformed and thereby exert some force upon all of the components, and changed metallurgically, thereby showing all aspects of the above claims since with respect to the process claims 35-41, 50 and 53-58, the insertion of the tube (13) which is of a greater diameter to some extent than the machined holes in their cold state causes some plastic deformation of the plate when the plate cools around the inserted tubes. Further with respect to apparatus claims 59 and 63-70, since the final apparatus or product is

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substantially similar, the manner of it's construction cannot be relied upon to fairly further distinguish claims to the final product.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 35-59 and 63-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hornschemeyer in view of either of GB'655 or JP'661. Hornschemeyer teaches a cooling plate and method of manufacture in which a cooling plate of copper materials has holes machined therethrough, which is then metallurgically deformed through rolling to form oval cooling passages therethrough, thereby showing all aspects of the above claims except the specific step of forming the cooling holes through the insertion of cooling tubes within the machined holes prior to deforming through rolling of the plate, although Hornschemeyer does state that the passages (7) may be made by "using all known methods" (paragraph [0023]) each of GB'655 and JP'661 teach that in forming heat exchange plates (which include cooling plates as shown by Hornschemeyer) in which cooling passages are to be formed within a cooling plate, it was known in the art at the time the invention was made to insert a cooling tube in a slit or bulge formed in the plate and then close through deformation or rolling. Because Hornschemeyer specifically allows for any desired cooling channel formation process, motivation to employ a channel formation process for a cooling or heat exchange plate in which rolling is employed as taught by

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each of GB'655 and JP'661, since Hornschemeyer also requires rolling deformation of the plate, as the channel formation step of Hornschemeyer, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

Applicant's arguments filed on 8/17/2009 have been fully considered but they are not persuasive. Applicant's arguments with respect to the application of German'998 to the instant claims are not persuasive for the reasons given above, German'998 does employ some degree of plastic deformation or metal forming, and the instant claims are broad enough to allow for any type of deformation including that resulting from the process of German'998. With respect to the apparatus claims, even if this were not so, the manner in which the product or apparatus is constructed cannot be relied upon to fairly distinguish apparatus claims from a substantially identical apparatus disclosed by the applied prior art.

Applicant's argument that there would be no suggestion to employ the construction methods of either of JP'661 or GB'655 in the construction of a cooling plate as disclosed by Hornschemeyer, and that Hornschemeyer actually teaches away from the use of such methods is not persuasive because firstly, as recited in the above rejection, Hornschemeyer specifically states that any desired cooling passage construction method may be employed, which would clearly include the methods of either of GB'655 or JP'661. As stated in the above rejections, Hornschemeyer in its broadest reasonable embodiment specifically includes the use of coolant channel construction steps as recited by each of GB'65 and JP'661 and a reference is relevant for

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all of the embodiments it teaches, not only it's preferred embodiments, but even non-preferred and undesirable embodiments.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Scott Kastler/
Primary Examiner, Art Unit 1793

sk